



March 15, 2013

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Attn: Nile Fellows

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**Subject: United States of America, et al. vs. Reilly Tar & Chemical Corporation, et al.  
File No. Civ. 4-80-469 CD-RAP Section 3.3**

Dear Project Leaders,

The City of St. Louis Park has prepared the attached "2012 Annual Progress Report" for the above-referenced Reilly Site. You may direct any questions or comments to this office.

Sincerely,

A handwritten signature in black ink that reads "William M. Gregg". The signature is written in a cursive, flowing style.

William M. Gregg  
Project Leader for the City of St. Louis Park

cc: Scott Anderson, City of St. Louis Park

**2012 ANNUAL PROGRESS REPORT  
ON THE  
IMPLEMENTATION OF THE CONSENT DECREE**

**SUBMITTED TO THE**

**REGIONAL ADMINISTRATOR  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION V**

**EXECUTIVE DIRECTOR  
MINNESOTA POLLUTION CONTROL AGENCY**

**BY**

**THE CITY OF ST. LOUIS PARK, MINNESOTA**

**PURSUANT TO  
CONSENT DECREE - PART K**

**UNITED STATES OF AMERICA, ET AL.**

**VS.**

**REILLY TAR & CHEMICAL CORPORATION, ET AL.**

**UNITED STATES DISTRICT COURT  
DISTRICT OF MINNESOTA  
CIVIL NO. 4-80-469**

**MARCH 15, 2013**

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## 1. INTRODUCTION

The Consent Decree in United States of America, et al. vs. Reilly Tar & Chemical Corporation, et al. (U.S. District Court, Minnesota, Civil No. 4-80-469) was signed by Judge Magnuson on September 3, 1986, and entered by the Court on the following day. The effective date of the Consent Decree is therefore September 4, 1986 (see Part EE of the Consent Decree).

The Consent Decree requires various actions to be taken by Reilly Industries, Inc. (now known as Vertellus Specialties Inc. but referred to in this report as Reilly), the City of St. Louis Park (City), the United States Environmental Protection Agency (USEPA), the Minnesota Pollution Control Agency (MPCA), and/or the Minnesota Department of Health (MDH). These actions are required by the Consent Decree itself, by the Remedial Action Plan (CD-RAP) (Exhibit A to, and an integral and enforceable part of the Consent Decree, per Part F thereof), or by an Agreement between Reilly and the City (Reilly/City Agreement) (Exhibit B to, and an integral and enforceable part of the Consent Decree, per Part Q thereof, as to the rights and responsibilities between Reilly and the City).

This Annual Progress Report (Report) submitted in accordance with the requirements of Part K of the Consent Decree describes actions taken to implement the requirements of the Consent Decree from January 1 through December 31, 2012. This Report also describes activities scheduled for calendar year 2013, as required by Part K. Two other annual reports are required and are submitted by March 15<sup>th</sup> of each year under separate cover. The Annual Monitoring Report presents all chemical analyses and water level measurements for that calendar year that are not presented in other reports. The second annual report is the Annual Performance Report for the granular activated carbon treatment system. That report discusses chemical analyses and pumping requirements for municipal wells SLP10 or SLP15 and for SLP4.

As an aid to the reader in following the progress of the many activities involved, this Report provides separate descriptions of completed and scheduled activities required by the Consent Decree (Report Sections 2.0 and 3.0, respectively) and by the CD-RAP (Report Sections 4.0 and 5.0, respectively). Within each section, areas of activity are discussed in the order in which they are discussed in the Consent Decree and CD-RAP.

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## **2. COMPLETED CONSENT DECREE ACTIVITIES**

Part K of the Consent Decree requires that Reilly submit annual progress reports to the USEPA and MPCA by March 15, which describe actions taken to implement the requirements of the Consent Decree during the previous year and describe activities scheduled for the year in which the report is released. The City, on behalf of Reilly, submitted the 2011 Annual Progress Report on March 15, 2012, pursuant to the requirements of Part K, of the Consent Decree. No response was received from the Agencies.

Part L of the Consent Decree requires all notices, correspondence, and reports forwarded from one party to another to be delivered by certified mail or equivalent receipt. During 2008, it was established during a conference call that electronic mail may be used as an acceptable option for official Reilly Site correspondence. A City letter dated October 23, 2008 documented this method for all future correspondence.

Part O of the Consent Decree states that Reilly, the City, the USEPA, or the MPCA may change its designated Project Leader and alternate by notifying the other Parties, in writing, of the change. No such changes were made during 2012.

Part Y of the Consent Decree requires Reilly to provide the USEPA and MPCA with current certification of insurance for certain specified coverage. Reilly wrote the USEPA and MPCA on July 7, 1987, to request that the excuse granted to Reilly on October 7, 1986, from meeting certain notification requirements for insurance cancellation is extended to July 1, 1988. The USEPA and MPCA approved this request on September 9, 1987. On March 28, 1991, Reilly submitted certificates of insurance for liability coverage; indicating excess coverage was in place. Reilly submitted information in partial compliance with Part Y and informed the Agencies that reasons necessitating an excuse continued to be valid, thereby causing it to request further extension of the excuse (relating to the language of the insurance certificates).

Part Z of the Consent Decree requires Reilly to provide financial assurance for various CD-RAP activities. Many changes to this requirement have been made over the years, with the most recent occurring on August 29, 2011 date at which time the Agencies requested \$238,000 of financial assurance. In accordance with its agreement with the Agencies, Reilly has provided a letter of credit as its instrument of financial assurance.

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### 3. SCHEDULED CONSENT DECREE ACTIVITIES

Part P of the Consent Decree addresses the issue of securing access agreements to conduct the various activities contemplated in the CD-RAP. In the past, the City has commenced negotiations with various parties from whom access authorization must be obtained based upon the content of Agency correspondence dated May 3, 1989. Said correspondence approved a revision in access agreement language for certain properties owned by the Minneapolis Parks and Recreation Board; however, the Agencies indicated they would review each agreement on a case-by-case basis. Accordingly, individual negotiations will be initiated with each affected property owner whereon the City must perform Consent Decree related activities in 2013 in an effort to secure similar agreements to those which were approved by the Agencies on May 3, 1989. No additional access agreements were made during 2012.

Part Q of the Consent Decree acknowledges the Reilly/City Agreement as Exhibit B to, and an enforceable part of the Consent Decree. Section 2 of the Reilly/City Agreement provides that by September 3, 1990, if necessary to avoid sanitary sewer charges on the discharge from wells W23, the Drift-Platteville Aquifer source control wells and gradient control well, Reilly shall plan, obtain necessary permits for, and construct a treatment facility and piping to allow effluent from the wells to be discharged to a storm sewer. As noted in Section 2 of the 1991 Annual Progress Report, a treatment facility was made operational in 1991, treating water discharged from wells W23, and the Drift-Platteville Aquifer source control wells (W420 and W421). Treatment is not available for the discharge from the Drift Aquifer gradient control well (W439), or the St. Peter Aquifer gradient control well (W410).

Section 9 of the Reilly/City Agreement provides for the payment by one party of costs incurred by the other party or the sharing by the parties thereto of costs incurred by one party in the implementation of the CD-RAP. Within 30 days of the close of the calendar quarter, in which the costs were incurred, the party incurring the costs shall issue a detailed statement of costs, including supporting documentation, and within 30 days of receipt of such notice, the owing party shall pay to the other its share of the costs. It is anticipated the parties will respond to said submittals in accordance with the provisions of the Reilly/City Agreement, or any other agreement between the City and Reilly.

Part T of the Consent Decree addresses compliance with all applicable local, state, and federal laws and regulations when implementing the Consent Decree. Among its provisions is the requirement that the USEPA and MPCA approve any facility used for off-site disposal of hazardous substances generated during work undertaken pursuant to the Consent Decree. If

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either Reilly or the City proposes to use a facility in 2012, the Agencies must confirm the status of the facility before the shipment of hazardous wastes commences.



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## **4. COMPLETED REMEDIAL ACTION PLAN ACTIVITIES**

Progress continued in the implementation of the CD-RAP during 2012. Operation of source and gradient control wells occurred throughout the year (except during maintenance activities) in the Prairie du Chien-Jordan Aquifer (W23, SLP4 and SLP10/15), St. Peter Aquifer (W410) and the Drift-Platteville Aquifer (W420, W421, and W439). In addition, monitoring of the Mount Simon-Hinckley, Prairie du Chien-Jordan, St. Peter, and Drift-Platteville Aquifers was completed. Table 1 summarizes the progress made in completing the required activities in the CD-RAP. Further details on the CD-RAP activities are provided below.

### **4.1 CD-RAP Section 2**

Section 2.4 of the CD-RAP requires all wells installed, reconstructed or abandoned in compliance with the requirements of the RAP must be in accordance with all applicable provisions of the MDH well code. The notification of and approval by the Commissioner is required. No wells were installed, abandoned, or reconstructed during 2012 to comply with the CD-RAP.

### **4.2 CD-RAP Section 3**

Section 3.3 of the CD-RAP requires Reilly to submit annual Sampling Plans to the USEPA and MPCA by October 31 of that year for the following year. Section 2(a) of the Reilly/City Agreement provides that the City assume all of Reilly's obligations under Section 3 of the CD-RAP. The 2012 Sampling Plan was submitted to the Agencies on October 31, 2011. A series of letters and telephone calls ensued and a revised sampling plan was approved by the Agencies after February 3, 2012 and prior to sampling in 2012.

The 2013 Sampling Plan was submitted on October 31, 2012. It contained an updated version of the Quality Assurance Project Plan (QAPP). The QAPP included a new laboratory (Alpha Analytical, Inc.) and a new method for low part per trillion level PAH analyses. In a letter dated December 13, 2012 the Agencies indicated that the new method would require modifications to the CD-RAP and that their review of the sampling plan and QAPP was ongoing. The City and Vertellus have indicated a desire to change the CD-RAP to allow the use of the new method. The Parties are working towards that end but have not modified the CD-RAP as of January 1, 2013.

Section 3.4 of the CD-RAP requires Reilly to submit an Annual Monitoring Report to the Agencies containing the results of all monitoring during the previous calendar year. The City submitted the 2011 Annual Monitoring Report on behalf of Reilly on March 15, 2012. An Agencies' letter dated June 4, 2011 stated that the 2011 report was not sufficient and provided many comments. A

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series of letters and telephone conversations were exchanged and the City submitted a revised report on December 4, 2012.

#### **4.3 CD-RAP Section 4**

The City operated the granular activated carbon (GAC) treatment system for municipal wells SLP10/15 in substantial compliance with Section 4.2 of the Remedial Action Plan (RAP) during 2011. A summary of the 2012 monthly pumping data is presented on Table 2. The City will forward the 2012 GAC system monitoring report to the Agencies by March 15, 2013, in accordance with CD-RAP Section 4.3.5.

Municipal well SLP10 pumped mostly without incident during 2012. SLP 10 pumped a total of 332 million gallons of groundwater in 2012, thus meeting the CD-RAP required minimum annual pumping rate of 200 million gallons per year.

In accordance with Section 4.3.5 of the CD-RAP, the annual report of the results of all GAC system monitoring completed in 2011 was reported on March 15, 2012.

#### **4.4 CD-RAP Section 5**

Section 5.1 of the CD-RAP requires Reilly to monitor the City's active Mt. Simon-Hinckley Aquifer wells on an annual basis. Section 2(a) of the Reilly/City Agreement provides that the City complete this task on behalf of Reilly. Except for one well that was out of service for maintenance for the entire year, the City completed the Mt. Simon-Hinckley Aquifer monitoring in compliance with Section 5.1 of the CD-RAP. The results have been presented in the Annual Report issued in accordance with Section 3.4 of the CD-RAP.

#### **4.5 CD-RAP Section 6**

Section 6.1.3 of the CD-RAP requires Reilly to pump well W105 at a monthly average rate of 25 gallons per minute (gpm) until such time as the well's discharge is in compliance with cessation criteria contained in Section 6.1.5. On December 4, 1991, the Agencies authorized the City to discontinue the pumping of well W105, and on December 13, 1991, the well was shut down.

Section 6.1.4 of the CD-RAP requires Reilly to monitor well W105 on a biannual basis (i.e. even numbered years). Section 2(a) of the Reilly/Tar Agreement provides that the City complete this task on behalf of Reilly. Well W105 was sampled in 2012 and the analytical results were provided in the annual report.

#### **4.6 CD-RAP Section 7**

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Section 7.1.3 of the CD-RAP requires Reilly to pump W23 at a monthly average rate of 50 gpm. Section 2(a) of the Reilly/City Agreement provides that the City operate W23 beginning the day pumping is started. A summary of the 2012 monthly pumping data is presented on Table 3. The monthly average flow rate ranged from 0 to 58 gpm with a monthly average for 2012 of 42 gpm. W23 was shut down for a portion of the year due to repairs made on the discharge line.

Section 7.2.7 of the CD-RAP requires Reilly to pump SLP4 at 300 gpm from May through September and at 900 gpm (or as near as practicable) during the months of October through April (an annual average of 650 gpm). Section 2(a) of the Reilly/City Agreement provides that the City assume this obligation for Reilly. A summary of the 2012 monthly pumping data is presented on Table 4. The City achieved an average monthly pumping rate of 844 gpm during 2012. The well did not pump in July 2012 due to maintenance.

Section 7.3 of the CD-RAP requires Reilly to monitor the Prairie du Chien-Jordan Aquifer as specified in Section 3 of the CD-RAP. Section 2(a) of the Reilly/City Agreement provides that the City will assume this obligation for Reilly. The City completed monitoring of the aquifer in substantial compliance with Sections 3 and 7.3 of the CD-RAP. Information relative to the monitoring can be found in the 2012 Annual Report to be submitted pursuant to Section 3.4 of the CD-RAP. Well W403 is a Prairie du Chien-Jordan Aquifer monitoring well that has shown unusually high levels of PAH in monitoring results. In 2012 the well was video-logged and an obstruction was found. Activities to clean out the obstruction and re-sample the well are underway.

Section 7.4 of the CD-RAP discusses modifications to the gradient control system for the Prairie du Chien-Jordan aquifer. A June 23, 2010 letter outlining a revised schedule for gradient control assessment was submitted by the City and the City submitted a progress report to the Agencies on January 20, 2011. PCJ groundwater monitoring continued in 2012. With the Agencies' help the City has begun to obtain water level and pumping data for the City of Edina well field in September 2012. The City anticipates including a discussion of these data in the 2012 Annual Report.

In a related matter, the City submitted a report on January 6, 2011 to address a concern for vertical hydraulic gradients that had been expressed in the 2006 Five Year Review of the Reilly Site. The City's report concluded that no additional work was required to address vertical gradients. A response to the City's submittal was received from the Agencies in February 2013.

#### **4.7 CD-RAP Section 8**

Section 8.3 of the CD-RAP authorizes the USEPA and MPCA to require Reilly to install and

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operate a gradient control well system for the purpose of preventing the further spread of ground water exceeding any of the Drinking Water Criteria defined in CD-RAP Section 2.2 in the St. Peter Aquifer. Section 2(a) of the Reilly/City Agreement provides that the City complete this task on behalf of Reilly. In response to April 1, 1991, correspondence from the Agencies on the issue, the City placed W410 in service on May 30, 1991.

A summary of the 2012 W410 pumping data is presented in Table 5. Table 5 indicates well W410 was pumped in compliance with the CD-RAP and the yearly average pumping rate for well W410 was 58 gpm.

Monitoring of St. Peter Aquifer monitor wells occurred in accordance with the provisions of the 2012 Sampling Plan. These data can be found in the 2012 Annual Report to be submitted pursuant to Section 3.4 of the CD- RAP.

#### **4.8 CD-RAP Section 9**

Section 9.1.3 of the CD-RAP requires Reilly to operate the Drift-Platteville Aquifer source control wells at a monthly rate of 25 gpm and monitor them on a quarterly basis. Section 2(a) of the Reilly/City Agreement provides that the City operate the wells beginning the day pumping is started and monitor them as required. Accordingly, the City has operated the wells and has performed necessary periodic inspections as outlined in a plan approved under Section 9.1.1 of the CD-RAP.

Summaries of the 2012 monthly pumping data for wells W420 and W421 are presented in Tables 6 and 7, respectively. Well W420 maintained an average monthly pumping rate of 27 gpm while the average pumping rate for W421 was 15 gpm for 2012. A leak in the discharge pipe beneath the well house was discovered on March 28, 2012. The leak necessitated turning the pumps off for repairs. The pumps were restarted following repairs on July 18, 2012. A valve was installed so that if another leak occurs under the well house, the rest of the discharge line can be used by well W23 while repairs are made.

Monitoring of the Drift-Platteville Aquifer source control wells occurred on a quarterly basis pursuant to the 2012 Sampling Plan. A report of the results can be found in the 2012 Annual Report issued pursuant to Section 3.4 of the CD-RAP.

In accordance with CD-RAP, Sections 9.2.3 and 9.5.1, the City began pumping well W439 (the Northern Area Drift Aquifer Gradient Control well) at 50 gpm in January 1996. A summary of the 2012 pumping data of the Northern Area Drift Aquifer Gradient Control well is presented in Table 8. Well W439 pumped at a monthly average rate of 58 gpm in 2011.

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Monitoring of the Northern Area Drift Aquifer Gradient Control well occurred on a semi-annual basis pursuant to the 2012 Sampling Plan. A report of the results can be found in the 2012 Annual Report issued pursuant to Section 3.4 of the CD-RAP.

Monitoring of Drift-Platteville Aquifer monitor wells occurred in accordance with the provisions of the 2012 Sampling Plan. These data can be found in the 2012 Annual Report to be submitted pursuant to Section 3.4 of the CD- RAP.

#### **4.9 CD-RAP Section 10**

Section 10.1.1 and 10.2.1 of the CD-RAP requires Reilly to submit to the USEPA, MPCA and MDH a plan for investigating certain multi-aquifer wells that may be adversely affecting the Mt. Simon-Hinckley, Ironton-Galesville, Prairie du Chien-Jordan and St. Peter Aquifers.

On July 6, 1995, the MPCA issued a letter to the City and Reilly, regarding review of the report for Leaking Deep Multi-Aquifer Wells and St. Peter Aquifer Multi-Aquifer Wells. In these reports, the City stated that no further St. Peter and Deep Multi-Aquifer wells are believed to exist in the study area which would require abandonment. The Agencies' July 6, 1995 letter approved both of these reports. No further work is required at this time.

#### **4.10 CD-RAP Section 11**

Section 11.5.1 of the CD-RAP requires the City to prepare a plan which addresses, among other things, actions to place an adequate soil and vegetative cover as needed to prevent soil erosion on city parks on the Site. The City performed routine maintenance on city parks in 2012. Approximately 1500 cubic yards of topsoil from the nearby St. Louis Park High School athletic field was used to improve the soil cover in the southwest portion of the site.

The City is engaged in a project that may reconstruct the Louisiana Avenue intersection with Trunk highway 7, just south of the Reilly Site. The project may make slight modifications to the grade of Louisiana Avenue and/or other areas within the Reilly Site property. Three soil borings were drilled on the Reilly Site to support the project. The City will continue to inform the Agencies about this project as it develops, and will perform all work on the Reilly Site in accordance with the requirements of CD-RAP Section 11.

#### **4.11 CD-RAP Section 12**

The Utility Superintendent has the responsibility to review all data upon receipt from the laboratory and to notify the Project Leader and Agencies of all exceedances of the Drinking Water Criteria in

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any municipal well, as outlined in Section 12.1.1 of the CD-RAP. Municipal well sampling results match historic levels of PAH, namely no detectable carcinogenic PAH, and concentrations of Other PAH are below the Drinking Water Criteria. Wells E7 and E13 exceeded the Advisory Drinking Water Criteria in 2012 sampling. The wells were re-sampled in accordance to Section 12.1.1 of the CD-RAP and the results were below the Advisory Drinking Water Criteria. There were no other exceedances of the Drinking Water Criteria in a municipal well in 2012.

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## **5. SCHEDULED REMEDIAL ACTION PLAN ACTIVITIES**

Table 9 summarizes the expected schedule for CD-RAP activities during 2013. Many of the schedule dates cannot be established definitely because they depend on Agency review, inspection, and approval. Ground water monitoring is an ongoing task.

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**TABLE 1****Status of Remedial Action Plan Activities – 2012**

<b>RAP Section</b>	<b>Item</b>	<b>Activities</b>
2.4	Well Construction and Abandonment	No wells were constructed or abandoned in 2012.
3.2./3.3	2012 Annual Sampling Plan	The 2012 plan was approved by the Agencies on February 3, 2012.
3.2./3.3	2013 Annual Sampling Plan (and QAPP)	Plan submitted by the City on October 31, 2012. A December 13, 2012 letter from the Agencies indicated that a CD-RAP modification would be necessary to allow priority pollutant PAH testing, as proposed.
3.4	2011 Annual Monitoring Report	Report submitted by the City on March 15, 2012. A series of letters, comments, responses, and telephone conferences resulted in a revised report submitted on December 4, 2012. The City continues to discuss the report with the Agencies.
4.2	Operation of SLP10/15 and GAC System Operation	The City operated the GAC system in compliance with the CD-RAP.
4.3	GAC System Monitoring	Completed in accordance with the 2012 Sampling Plan.
4.3.5	2010 GAC Annual Report	Report submitted by the City on March 15, 2012. Agencies approved report in a May 29, 2012 letter.
5.1	Mt.-Simon Hinckley Aquifer Monitoring	Completed as outlined in the 2012 Sampling Plan.
6.1.4	W105 Monitoring	Completed in accordance with the 2012 Sampling Plan.
7.1.3	Operation of W23	Well W23 was operated in compliance with the CD-RAP. Repairs to the discharge line meant no pumping from May to July 18, 2012.
7.2.7	Operation of SLP4	SLP4 operated in compliance with the CD-RAP.
7.3	Prairie du Chien-Jordan Aquifer Monitoring	Completed as outlined in the 2012 Sampling Plan.
7.4.1	Gradient control system modifications in the Prairie du Chien-Jordan Aquifer	The City began receiving Edina water level data starting on September 17, 2012. Analysis will be included in the 2012 Annual Report.



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**TABLE 1****Status of Remedial Action Plan Activities – 2012**

<b>RAP Section</b>	<b>Item</b>	<b>Activities</b>
8.1.3	St. Peter Aquifer monitoring	Completed as outlined in 2012 Sampling Plan.
8.3	Operation of W410	Well W410 was operated in compliance with the CD-RAP.
9.1.3	Operation/monitoring of Drift-Platteville Aquifer source control wells, W420 and W421	Wells W420 and W421 were operated in compliance with the CD-RAP. Repairs to the discharge line meant no pumping from March 28 to July 18, 2012.
9.2.3	Operation/monitoring of Drift-Platteville Aquifer gradient control well W422	In accordance with the Agencies' approval letter dated October 3, 2000, pumping of W422 was discontinued in October 2000.
9.5.1	Operation of W439	Well W439 was operated in compliance with the CD-RAP. The well was not pumped during maintenance in May 2012.
9.6	Drift-Platteville Aquifer monitoring	Completed as outlined in the 2012 Sampling Plan.
9.7.2	Platteville Aquifer gradient control well W434	An MPCA letter dated March 17, 2006 approved the cessation of pumping at well W434.
11.5.1	Development of the site	Routine site maintenance was completed at the Site in 2012. Top soil was added in the southwestern portion of the site. A RAP was submitted to support reconstruction of Louisiana Avenue/TH7 intersection.
12.1.1	Exceedance of advisory levels	Wells E13 and E7 produced samples that exceeded criteria, but resampling showed that results were below criteria.

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**TABLE 2**

**SLP 10 2012 Pumping Data**

<b>Month</b>	<b>Total Gallons Pumped</b>	<b>Monthly Average Flow Rate Gallons Per Minute</b>
January	20,239,000	453
February	21,584,000	535
March	20,232,000	453
April	22,265,000	515
May	29,078,000	651
June	35,570,000	823
July	44,568,000	998
August	40,608,000	910
September	40,365,000	934
October	27,943,000	626
November	14,645,000	339
December	14,473,000	324
<b>TOTAL</b>	<b>331,570,000</b>	<b>631</b>

**TABLE 3**

**W23 2012 Pumping Data**

<b>Month</b>	<b>Total Gallons Pumped</b>	<b>Monthly Average Flow Rate Gallons Per Minute</b>
January	2,386,230	53
February	2,348,570	58
March	2,477,550	56
April	2,480,570	57
May	0	0
June	0	0
July	1,035,130	23
August	2,229,250	50
September	2,035,700	47
October	2,195,430	49
November	2,284,100	53
December	2,372,410	53
<b>TOTAL</b>	<b>21,844,940</b>	<b>42</b>

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**TABLE 4**

**SLP4 2012 Pumping Data**

<b>Month</b>	<b>Total Gallons Pumped</b>	<b>Monthly Average Flow Rate Gallons Per Minute</b>
January	41,311,000	925
February	31,750,000	787
March	44,067,000	987
April	42,888,000	993
May	37,894,000	849
June	29,695,000	687
July	-0	0
August	39,247,000	879
September	45,784,000	1060
October	45,788,000	1026
November	40,981,000	949
December	44,134,000	989
<b>TOTAL</b>	<b>443,539,000</b>	<b>844</b>

**TABLE 5**

**W410 2012 Pumping Data**

<b>Month</b>	<b>Total Gallons Pumped</b>	<b>Monthly Average Flow Rate Gallons Per Minute</b>
January	2,572,900	58
February	2,562,470	64
March	2,701,620	61
April	2,601,920	60
May	2,647,450	59
June	2,452,140	57
July	2,535,570	57
August	2,423,190	54
September	2,378,590	55
October	2,499,460	56
November	2,425,780	56
December	2,491,150	56
<b>TOTAL</b>	<b>30,292,240</b>	<b>58</b>

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**TABLE 6**

**W420 2012 Pumping Data**

<b>Month</b>	<b>Total Gallons Pumped</b>	<b>Monthly Average Flow Rate Gallons Per Minute</b>
January	1,234,250	28
February	1,164,250	29
March	1,075,800	24
April		0
May		0
June		0
July	548,110	12
August	1,905,220	43
September	1,920,330	44
October	2,027,390	45
November	2,011,730	47
December	2,186,310	49
<b>TOTAL</b>	<b>14,073,390</b>	<b>27</b>

**TABLE 7**

**W421 2012 Pumping Data**

<b>Month</b>	<b>Total Gallons Pumped</b>	<b>Monthly Average Flow Rate Gallons Per Minute</b>
January	1,113,140	25
February	1,053,140	26
March	972,940	22
April		0
May		0
June		0
July	265,220	6
August	930,680	21
September	907,510	21
October	921,150	21
November	876,460	20
December	890,860	20
<b>TOTAL</b>	<b>7,931,100</b>	<b>15</b>

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**TABLE 8**

**W439 2012 Pumping Data**

<b>Month</b>	<b>Total Gallons Pumped</b>	<b>Monthly Average Flow Rate Gallons Per Minute</b>
January	2,274,610	51
February	1,941,030	48
March	1,958,430	44
April	1,558,330	36
May	403,370	9
June	1,050,040	24
July	2,149,820	48
August	2,181,910	49
September	2,103,640	49
October	2,245,870	50
November	2,177,420	50
December	2,261,490	51
<b>TOTAL</b>	<b>22,305,960</b>	<b>42</b>

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**TABLE 9****Expected Remedial Action Plan Activities – 2013**

<b>RAP Section</b>	<b>Item</b>	<b>Expected Timetable</b>
3.3	Sampling Plan for 2014	City to submit plan October 31, 2013
3.3	2014 QAPP submittal	City to submit QAPP June 30, 2013
3.4	2012 Annual Monitoring Report	City to submit report March 15, 2013
4.2	Operation and Maintenance of the GAC System at Wells SLP10 and 15	Ongoing
4.3	GAC Plant Monitoring	Continued monitoring in accordance with the RAP
4.3.5	2012 GAC Annual Report	City to submit report March 15, 2013
5.1	Mt. Simon-Hinckley Aquifer Monitoring	Refer to 2013 Sampling Plan
6.1.4	W105 Monitoring	Refer to 2013 Sampling Plan
7.1.3	Operation of W23	Ongoing
7.2.7	SLP4 Operation	Ongoing
7.3	Prairie du Chien-Jordan Aquifer Monitoring	Refer to 2013 Sampling Plan
7.4.2	PCJ Aquifer gradient control system modifications.	The City will provide a discussion of this topic in the 2012 Annual Monitoring Report using Edina water level data.
8.1.3	St. Peter Aquifer Monitoring	Refer to 2013 Sampling Plan
8.3	St. Peter Aquifer Remedial Action Gradient Control Well Operation - W410	The City will continue to operate this well until cessation is authorized by the Agencies.
9.1.3	Operation of Drift-Platteville Aquifer Source Control Wells, W420 and W421	The City will continue to operate these wells until cessation is authorized by the Agencies.
9.3.3, 9.6	Drift-Platteville Aquifer Monitoring	Refer to 2013 Sampling Plan
9.5.1	Operation of Drift Aquifer Gradient Control Well - W439	The City will continue to operate this well until cessation is authorized by the Agencies.
11.5	Development Plan and Site Maintenance	Ongoing
12.1	Contingent Monitoring	Ongoing, if necessary.